

REMARKS

The Official Action rejects claims 1-12, 14-16, 49-58, 60-62, 70-81, 83-85 and 94 as obvious based on the combination of U.S. Patent 5,322,807 to Chen and U.S. Patent 4,597,160 to Ipri. The Official Action further rejects all remaining claims as obvious based on the combination of Chen, Ipri and one or more of U.S. Patent 4,851,363 to Troxell; Wolf, pages 216-217; and Wolf, pages 171-175.

As stated in MPEP § 2143-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Official Action appears to contend that it would have been obvious to one skilled in the art that the oxidation temperatures disclosed in Ipri could have been used in the known method of Chen et al. It is respectfully submitted, however, that one of skill in the art would not have been motivated to combine the teachings of Chen and Ipri to achieve the present invention. Ipri discloses an oxidizing ambient, in particular heating to between about 580 °C and 620 °C, in 100 percent steam (see column 2, lines 21-25). On the other hand, high pressure oxidation in Chen does not include 100 percent steam (see column 3, lines 68 - column 4, lines 3). It is respectfully submitted

that one of skill in the art would not have been motivated to use the oxidation temperatures of Ipri in the method of Chen since the oxidizing ambient of Ipri is different from that of Chen. Favorable reconsideration is requested for this first reason.

Furthermore, the fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). See MPEP 2143.01. In the Official Action, it is stated that "it would have been obvious to one skilled in the art that the oxidation temperatures of Ipri could have been used in the known method of Chen et al., since these temperatures are below 825 °C. Moreover, it would have been obvious to one skilled in the art that the oxidizing atmosphere of Ipri, as well as the temperature range of Ipri, could have been used in the method of Chen et al., since Ipri teaches that a high quality dielectric of a TFT can be formed by the high pressure oxidation performed in steam at temperatures in the range of 580 to 620 °C." (Emphasis added).

It is respectfully submitted, however, that such assertions are insufficient to establish a *prima facie* case of obviousness. As indicated in the MPEP, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. It is respectfully submitted that the prior art, taken alone or in combination, completely fails to disclose or suggest any desirability of the combination of Chen and Ipri to achieve the present invention and favorable reconsideration is requested for this further reason.

New dependent claims 106-117 are added herewith. These dependent claims recite that an exposed surface of a crystallized semiconductor film is oxidized. It is respectfully submitted that neither Chen nor the other prior art of record discloses or suggests this feature and that claims 106-117 are also in condition for allowance.

The Official Action further asserts that claims 1-105 of the subject application conflict with claims 1, 2, 12, 13, 17 and 18 of application serial number 09/222,185 and claims 1 and 6 of application serial number 09/615,078. Furthermore, claims 1-105 are provisionally rejected under the doctrine of double patenting based on the combination

of claims 1-26 of the '185 application and U.S. Patent 5,275,851 to Fonash. Claims 1-105 are further provisionally rejected under the doctrine of double patenting based on the combination of claims 1-44 of the '078 application and Fonash. Applicant respectfully disagrees that the claims of the subject application are conflicting with the claims of the '185 or '078 applications and, in any event, requests that such rejections be held in abeyance until such time as allowable subject matter is indicated in the subject application. At that time, a complete response to any remaining double patenting rejections can be filed.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



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